Rat IL-10 Singleplex Bead Kit

Technical Data Sheet

Catalog #: LRC0101 **Lot #:*** 366555

***Note: A letter at the end of the lot number signifies an additional packaging of this same lot.**

Intended Use

This kit is comprised of components for the measurement of rat IL-10 in serum, plasma or tissue culture supernatant. The assay may be run alone or in combination with other Singleplex Bead Kits from Invitrogen. Buffer reagents needed to complete the reaction are sold separately under Catalog #LMB0001. These reagents are intended for use in the **Luminex® 100™ or 200™ System** only. **This kit is configured for research use only and is not to be used in diagnostic procedures.**

Reagents Provided

Rt IL-10

1. **Part #:** LM149 **Description:** Antibody Bead Concentrate (10X) **Lot:** 403249 **Size:** 0.25 mL-100 tests

Bead Region: 15
Form: 0.25 mL 10X bead concentrate solution in storage buffer. Contains 0.05% sodium azide as a preservative.
Storage: **Light sensitive material.** Store at 2 to 8°C, in the dark, until the expiration date indicated on the kit.

Rt IL-10

2. **Part #:** BN149 **Description:** Biotinylated Ab Conc. (10X) **Lot:** 494724 **Size:** 1 mL-100 tests

Form: 1 mL of a 10X stock of Biotinylated Antibody Concentrate in Biotin Diluent. Contains 0.1% sodium azide as preservative. Concentration of antibody is matched to this lot of beads. Do not mix lots of Coated Beads and Detection Antibody.
Storage: Store at 2 to 8°C until the expiration date indicated on the kit.

3. **Part #:** SM0562 **Description:** Rt Cytokine 10-Plex Standard **Lot:** 491428 **Size:** 2 Vials

Form: Lyophilized. The proteins in this standard have been calibrated against the masses of highly purified recombinant proteins, with the respective Invitrogen ELISA kit. Refer to the User Manual included in the Buffer Reagent Kit for further information. Contains 0.1% sodium azide as a preservative.
Storage: Store at 2 to 8°C. Use within 1 hour after reconstitution. Discard immediately after use.

Concentration of Reconstituted Standards:**

GM-CSF (5,320 pg/mL)	IFN-γ (4,350 pg/mL)	IL-1α (31,660 pg/mL)	IL-1β (16,840 pg/mL)
IL-2 (34,020 pg/mL)	IL-4 (2,040 pg/mL)	IL-6 (8,300 pg/mL)	IL-10 (36,300 pg/mL)
IL-12 (10,390 pg/mL)	TNF-α (1,260 pg/mL)		

****Important note: The concentrations of reconstituted standard are lot-specific. Please verify all concentration values entered in data analysis software.**

Reconstitution: Reconstitute with 1.0 mL Assay Diluent when measuring IL-10 in serum or plasma samples. For other sample types, such as tissue culture supernatants, reconstitute the standard in 1.0 mL of a solution consisting of 50% Assay Diluent + 50% sample matrix. Allow standard to rehydrate for approximately 10 minutes before further dilution.

Recommended Starting Concentration for Standard Curve: Upon reconstitution, the starting concentration of standard is the value cited above. Make serial 1:3 dilutions in Assay Diluent (serum/plasma samples) or other appropriate matrix. Use 100 µL per assay. If establishing a Multiplex Assay, this same standard can be used to measure the other related cytokines cited above in a Multiplex Assay format. Refer to the User Manual included in the Buffer Reagent Kit for further information.

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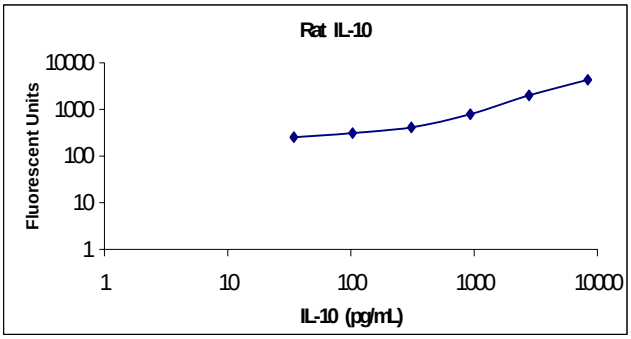
Performance Characteristics

Analytical Sensitivity: The minimum detectable dose of rat IL-10 is <30 pg/mL. This was determined by adding two standard deviations to the mean FI obtained when the zero standard was assayed 30 times.

Typical Standard Curve



Specificity: Buffered solutions of a panel of substances at 10 ng/mL were assayed with the Invitrogen Rat IL-10 Singleplex Bead Kit. The following substances were tested and all were found to have no cross-reactivity: rat IL-1α, IL-1β, IL-2, IL-4, IL-5, IL-6, IL-12, GM-CSF, IFN-γ, TNF-α, MCP-1, MIP-1α, VEGF; mouse IL-10 and human IL-10.

Precision:

	Intra-assay (n=16)	Inter-assay (n=32)
Mean (pg/mL)	4605.4	4762.4
SD	119.7	226.6
%CV	2.6	4.8

Linearity: Rat serum and tissue culture medium containing 10% fetal calf serum were spiked with rat IL-10 and serially diluted in Assay Diluent and a solution consisting of 50% Assay Diluent and 50% tissue culture medium containing 10% fetal calf serum, respectively, over the range of the assay. Linear regression analysis of samples versus the expected concentration yielded a correlation coefficient of 0.99 for serum and tissue culture.

Recovery:

Rat serum averaged 95.4% (range: 85.4% to 100.7%).

Rat EDTA plasma averaged 95.0% (range: 90% to 99.4%); Heparin plasma averaged 89.6% (range: 84.4% to 97.9%); Citrate plasma averaged 95.3% (range: 93.4% to 97.6%).

Tissue culture medium containing 10% fetal calf serum averaged 83.6% (range: 66.7% to 102.8%).

Explanation of symbols

Symbol	Description	Symbol	Description
REF	Catalogue Number	LOT	Batch code
RUO	Research Use Only	IVD	*In vitro* diagnostic medical device
	Use by		Temperature limitation
	Manufacturer	EC REP	European Community authorised representative
[-]	Without, does not contain	[+]	With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

By purchasing this Kit, which contains fluorescently labeled microsphere beads authorized by Luminex® Corporation ("Luminex®"), you, the customer, acquire the right under Luminex's patent rights to use this Kit or any portion of this Kit, including without limitation the microsphere beads contained herein, only with Luminex's laser based fluorescent analytical test instrumentation marketed under the name Luminex® 100™ or 200™. This product is covered by one or more of the following U.S. patents: 6,046,807.

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